

AMENDMENTS TO THE CLAIMS:

This listing of claims will replace all prior versions, and listings, of claims in this application.

- 1.(Previously Presented) An apparatus comprising:
 - a transceiving antenna component that is coupled to a first wireless communication device, the transceiving antenna component configured to receive a modulated signal from the first wireless communication device; and
 - an extendable antenna component that is coupled to the transceiving antenna component via a nongalvanic interface, the transceiving antenna component configured to convey the modulated signal to the extendable antenna component via electromagnetic induction, the extendable antenna component configured to widen a bandwidth of the transceiving antenna component for transmitting the signal to at least one other wireless communication device.
- 2.(Currently Amended) The apparatus system of claim 1, wherein the transceiving antenna component comprises an active stub.
- 3.(Currently Amended) The apparatus system of claim 2, wherein the active stub comprises at least two active elements, respective active elements each associated with disparate resonant frequencies.
- 4.(Currently Amended) The apparatus system of claim 2, wherein the transceiving antenna element comprises at least one of a meander line conductor and a helical conductor.
- 5.(Currently Amended) The apparatus system of claim 1, the extendable antenna component is a parasitic whip.
- 6.(Currently Amended) An apparatus comprising:
 - a transceiving antenna component configured to receive a modulated signal from a first wireless communication device; and
 - an extendable antenna component that is coupled to the transceiving antenna component via a nongalvanic interface, the transceiving antenna component configured to

convey the modulated signal to the extendable antenna component via electromagnetic induction, the extendable antenna component configured to transmit the signal, and wherein the extendable antenna component is tuned to operate at a frequency based on a length of the extendable antenna component and an amount of overlap between the transceiving antenna component and the extendable antenna component.

7.(Currently Amended) The apparatus system of claim 1, the extendable antenna component resonates at 800 MHz and 1900 MHz when the extendable antenna component is about 60-120 mm in length and overlaps the transceiving antenna component by about 4-6 mm.

8.(Currently Amended) The apparatus system of claim 1, the extendable antenna component is detuned via positioning the extendable antenna component in a retracted location relative to the transceiving antenna component.

9.(Currently Amended) The apparatus system of claim 8, the extendable antenna component is detuned by at least one of a matching network and de-coupling the extendable component and the transceiving antenna component via a non-conductive end of the extendable antenna component.

10.(Currently Amended) The apparatus system of claim 1 disposed within one of a cellular phone, a PDA, a handheld computer, a notebook computer, and a pager.

11.(Currently Amended) The apparatus system of claim 1, the extendable antenna component further receives a signal from ~~at least one other wireless communication device~~, the signal is inductively transferred to the transceiving antenna component, which conveys the signal to the first wireless communication device.

12.(Currently Amended) The apparatus A multi-frequency antenna for a mobile device, comprising:

an active stub tuned to resonate at multiple frequency bands; and
a parasitic whip coupled to the active stub, the parasitic whip configured to widen a bandwidth of a received signal resonating at least partially within one of the tuned frequency bands of the active stub and for inductively transferring the signal to the active stub.

13.(Currently Amended) The apparatus system of claim 12, the active stub comprises at least two meander line conductors and the parasitic whip is aligned substantially parallel to and between the meander line conductors.

14.(Currently Amended) The apparatus system of claim 12, the active stub comprises a helical conductor, and the parasitic whip is aligned through approximately the center of the helical conductor.

15.(Currently Amended) The apparatus system of claim 12 disposed within one of a cellular phone, a PDA, a handheld computer, a notebook computer, and a pager.

16.(Currently Amended) The apparatus system of claim 12, wherein the parasitic whip is tuned to the frequency based on an amount of overlap with the active stub and a size of the parasitic whip.

17.(Currently Amended) The apparatus system of claim 12, wherein the parasitic whip is tuned to receive signals within the 800 MHz and 1900 MHz band when a length of the parasitic whip is about 60-120 mm and an overlap with the active stub is about 4-6 mm.

18.(Currently Amended) The apparatus system of claim 12, wherein the parasitic whip is detuned via retracting the parasitic whip relative to the active stub.

19.(Currently Amended) The apparatus system of claim 12, wherein the parasitic whip further inductively receives a signal from the active stub and transmits the signal ~~to at least one other mobile device~~.

20.(Currently Amended) A method for transmitting a radio frequency signal from a wireless communications device comprising:

extending a parasitic whip to overlap an active stub;
providing the active stub with the radio frequency signal from the wireless communications device;
inducing a current in the parasitic whip; and
transmitting the signal utilizing both the active stub and the parasitic whip such that the parasitic whip widens a bandwidth of the active stub.

21.(Original) The method of claim 20 further comprises detuning the parasitic whip by retracting the parasitic whip.

22.(Original) The method of claim 20, transmitting the signal via the active stub when the parasitic whip is detuned.

23-26 (Canceled)

27.(Currently Amended) An apparatus comprising:

a fixed antenna component;
an extendable antenna component inductively coupled to the fixed antenna component in an extended position via an overlap extending at least about 4 mm between the fixed and extendable antenna components, and decoupled from the fixed antenna component in a retracted position;
wherein the extendable antenna component is configured to operate ~~operates~~ in the extended position to widen a bandwidth of the fixed antenna element.

28.(Previously Presented) The apparatus of claim 27, wherein the overlap extends between about 4-6 mm.

29.(Previously Presented) The apparatus of claim 27, wherein the extendable antenna component is decoupled from the fixed antenna component by a detuning circuit.

30.(Previously Presented) An apparatus comprising:

a fixed antenna component;
an extendable antenna component inductively coupled to the fixed antenna component in an extended position via an overlap extending at least about 4 mm between the fixed and extendable antenna components, and decoupled from the fixed antenna component in a retracted position by a detuning circuit that is disposed on a printed wiring board that comprises a ground plane to the fixed antenna component.

31.(Previously Presented) An apparatus comprising:

a fixed antenna component;

an extendable antenna component inductively coupled to the fixed antenna component in an extended position via an overlap extending at least about 4 mm between the fixed and extendable antenna components, and decoupled from the fixed antenna component in a retracted position by a non-conductive portion of the extendable antenna component overlapping with the fixed antenna component while in the retracted position.

32.(Previously Presented) The apparatus of claim 27, further comprising a printed wiring board comprising transceiver circuitry coupled to the fixed antenna component, said extendable antenna coupled to the transceiver circuitry only through the fixed antenna component and only when said extendable antenna component is in the extended position.

33.(Previously Presented) An apparatus comprising:

a fixed antenna component;
an extendable antenna component inductively coupled to the fixed antenna component in an extended position via an overlap extending at least about 4 mm between the fixed and extendable antenna components, and decoupled from the fixed antenna component in a retracted position;
wherein the fixed antenna component is coupled to a printed wiring board that comprises a ground plane to the fixed antenna component, said extendable antenna component disposed so as to lie alongside the printed wiring board while in the retracted position.

34.(Canceled)

35.(Previously Presented) The apparatus of claim 27, wherein the extendable antenna component comprises one of a quarter wavelength whip, a three-eighths wavelength whip, and a five-eighths wavelength whip.

36.(Currently Amended) The apparatus of claim 27, disposed within a mobile device telephone, said mobile device telephone further comprising a display and a keypad.